GUIDE:

Georeferencing Specimens in Symbiota (SEINet or MyCoPortal) Using GeoLocate

This document is designed to be an instructional guide on how to use the Georeferencing tools built within Symbiota. Please also consult latest version of Georeference Quick Reference Guide for detailed protocols and term definitions.

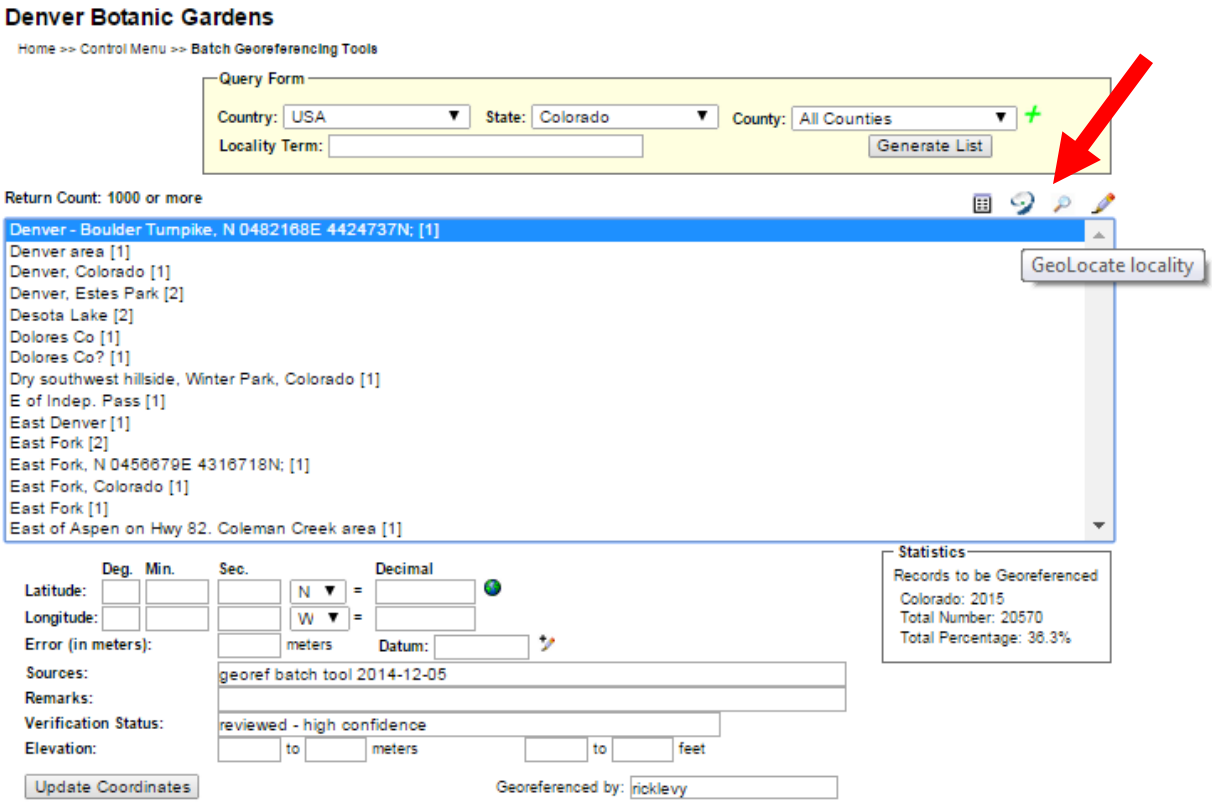
Starting up SEINet (for KHD Collections)

1. Using Firefox or Google Chrome browser, navigate to the SEINet homepage (http://swbiodiversity.org/seinet/index.php).
2. If this is your first time on the portal, select "New SEINet Account" from the upper left-hand corner of the screen. Contact Rick to gain access to KHD collections. Otherwise, choose "Log In" and follow the prompts.
3. Once you are logged in, choose "Search Collections" from the left menu bar. This should be the first option available under the header "SEINet Home".
4. Then click "My Profile" at the top of the page. This will direct you to a page with three tabs.
5. Choose the center tab, "Specimen Management"
6. Then click "Denver Botanic Gardens (KHD)". This will take you to the Data Editor Control Panel (if the control panel does not appear, click the small pencil on the upper right portion of the screen)

Georeferencing Specimens

1. Select "Batch Georeference Specimens" from the Data Editor Control Panel
2. At the top of the page, use the drop down menu to select the country, state, and county from which you would like to Georeference specimens. Currently, records from USA, Colorado are a priority.

3. Click “Generate List” This will populate a list of records that have not been georeferenced based on the query above (country, state, and county selected).
4. Begin by choosing a record from the list. Click on the record and it will become highlighted in blue.
5. Then click the GeoLocate logo:



6. Upon clicking the GeoLocate logo a new window will open. Move this widow to the opposing computer monitor screen (this process is easiest when using a workstation with 2 monitor screens)

Placing a Marker on the Map

The information that was transferred (or not) to the GeoLocate application will determine the next steps.

   a. If Locality information is transferred to the “Locality String” in the GeoLocate window and one or more points are placed on the map, skip to **Step 11**.
   b. If the “Locality String” field is empty or only contains “[1]” continue to **Step 7**.

7. With the same record still highlighted in grey or blue, click the edit record icon
8. This will open a new window, the record editor page.
9. Copy the information from within the locality field and paste it into the Locality Sting field in the GeoLocate window.
10. If this does not help the application pin-point some possible localities, you have a few options:

a. Use google maps or a google search to make an informed decision about where the locality is
b. Use your own personal geographical knowledge to make an informed decision about where the locality is
c. Skip this record and move on

Remember, it is always better to skip a record than enter incorrect or questionable data!

11. If there is more than 1 possible location, choose the best location based on available locality information and protocols from georeference quick guide. If there is only one possible location, evaluate to be sure that it reflects what is recorded in the locality information.
12. If no points are generated on the map, check to see that the locality string was filled in (in the GeoLocate window). If it has been, check the image of the specimen record, to see that the information on the label matches what is entered into the Locality field. If everything matches and is filled in, but still no points are generated on the map, you may want to conduct an internet/brain search for the location. Once you have identified the locality, place a marker by selecting the "Place marker" option in the workbench. This will then allow you to place a marker wherever you click next in the map window.

Uncertainty Radius

To adjust the uncertainty radius, click on the point marker. This will open a dialog box. Select "Edit uncertainty". This will produce a grey arrow on the outside of the uncertainty radius. Click and drag the arrow to create an uncertainty radius of appropriate size (based on locality information and georeferencing best practices.

To have the uncertainty radius be automatically sized to circumscribe a city or polygon on the map (if the locality is Denver, for example) click the marker and select "Resize uncertainty to polygon". This will only be an option when a polygon delineating a named place is drawn on the map by the application. Usually the marker will be placed in the *political center* of the named place (capital building for Denver), not the *geographic* or true center of a named place. To use the *geographic center* as the marker point, simply click and drag the marker to what you judge to be the actual center and select "resize uncertainty to polygon" again.

Use of converters or other tools

Often the use of a coordinate converter or other online tool is employed to determine the latitude and longitude. It is recommended to use an alternative resource to double check the locality.

Record the name or web address of this tool in the **Georeference Sources** field

Some Excellent Alternative Resources:

Google Maps

Falling Rain

Getty Thesaurus of Geographic Names

Fuzzy Gazetteer

Erroneous Locality Name

Occasionally an **obvious** mistake has been made when creating a label in regard to the name of the locality. This could either be a typographical error or just a simple misnaming of the locality.

In this case, correct the error within the locality field and in the **notes** field record the error as such:

Locality name corrected from Denver Botanical Gardens